WHAT IS CLAIMED IS:

1. A cryoarray device comprising:

a mold plate having an upper and a lower surface;

mold alignment pins, said mold alignment pins perpendicularly attached to the lower surface of said mold plate,

an ejector plate having an upper surface and a lower surface, said plate comprising holes between said upper surface and said lower surface;

ejector pins, said ejector pins comprising ejector thumb pads attached to an upper surface of said pins, said ejector pins connecting said mold plate and said ejector plate; and

cryoarray pins, said cryoarray pins equal in number to said holes in said ejector plate and aligned with said holes in said ejector plate.

2. The cryoarray device of claim 1, wherein said mold alignment pins direct the placement of said device into a tissue mold.

3. The cryoarray device of claim 1, wherein said said cryoarray pins connect operably to the lower surface of said mold plate and are capable of passing through said holes in said ejector plate.

4. The cryoarray device of claim 1, wherein said ejector pins are capable of lowering and of raising said ejector plate over said cryoarray pins.

5. The device of claim 1, further comprising:

ejector springs, each of said springs surrounding an outer surface of each of said ejector pins and operably located between said upper surface of said mold plate and said lower surface of one of said ejector thumb pads.

6. A cryoarray system for forming an array for frozen tissue, comprising:

a tissue mold;

an embedding medium, said embedding medium filling said tissue mold, said embedding medium capable of being frozen therein, said frozen embedding medium forming a recipient tissue block; and

the cryoarray device of claim 1, said device placed in said tissue mold with said embedding medium, but prior to freezing said embedding medium;

wherein freezing said embedding medium around said cryoarray pins of the device of claim 1 creates grid holes into said recipient block upon separation of said cryoarray device from said recipient block thereby forming an array in said recipient block for frozen tissue.

7. The cryoarray system of claim 6, wherein said embedding medium is O.C.T.™ compound.

8. The cryoarray system of claim 6, wherein said embedding material is frozen at a temperature of about –20 °C to about –80 °C.

9. The cryoarray system of claim 6, wherein said recipient block is separated from said cryoarray device by depressing said ejector pins to lower said ejector plate over said cryoarray pins.

10. A method for preparing tissue for assays, comprising the steps of:

selecting at least one frozen tissue core from a donor block;

inserting each of said at least one frozen core into said grid holes of said recipient block of the cryoarray system of claim 4;

cutting sections from said array; and

assaying said sections.

11. The method of claim 10, wherein said tissue is from about 1.0 mm to about 3.0 mm in diameter.

12. The method of claim 11, wherein said tissue is from about 2.5 mm to about 3.0 mm in diameter.

13. The method of claim 10, wherein said tissue assay is selected from the group consisting of morphologic evaluation, *in situ* hybridization, immunohistochemistry, *in situ* polymerase chain reaction and fluorescence *in situ* hybridization.